# MICROFLUIDIC PROTEIN CRYSTALLOGRAPHY TECHNIQUES

## ABSTRACT OF THE DISCLOSURE

The present invention relates to microfluidic devices and methods facilitating the growth and analysis of crystallized materials such as proteins. In accordance with one embodiment, a crystal growth architecture is separated by a permeable membrane from an adjacent well having a much larger volume. The well may be configured to contain a fluid having an identity and concentration similar to the solvent and crystallizing agent employed in crystal growth, with diffusion across the membrane stabilizing that process. Alternatively, the well may be configured to contain a fluid having an identity calculated to affect the crystallization process. In accordance with the still other embodiment, the well may be configured to contain a material such as a cryo-protectant, which is useful in protecting the crystalline material once formed.